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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,250	07/23/2003	Sandra Graves	108643-132821	1016

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EXAMINER

CHARLES, MARCUS

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/626,250	Applicant(s) GRAVES, SANDRA	
	Examiner Marcus Charles	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to the amendment filed 01-09-2006, which has been entered.

Claims 1-18 are currently pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehlen et al. (3,878,607) in view of Bell et al. (5,136,783). Ehlen discloses a nose sprocket for a chain saw, the sprocket comprising an inner race (36), an outer race (70) and a plurality of bearings (42) in the opening between the outer and inner peripheries of the inner and outer races; a gullet (62) defined between the leading edge of each plurality of teeth and the trailing edge of each adjacent plurality of teeth (60). Ehlen et al. do not disclose the chain (tang) contacts the lower portion of the sprocket teeth. Bell et al. disclose a chain saw comprising a chain having a tang (42) that contacts the lower portion of the plurality of teeth in order to better withstand the harsh conditions imposed by cutting application. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to install the chain of Bell et al. on the sprocket system of Ehlen et al. in order to better withstand the harsh conditions imposed by cutting application.

In claims 2 and 7, Ehlen et al. disclose the claimed invention. Note the relief section of Ehlen et al. has a greater angle than the lower section.

In claim 8, Ehlen et al. discloses the claimed invention above.

In claim 6, Ehlen et al. discloses the claimed invention above, including a bar (18) having opposed walls (64, 66) along the perimeter, a groove along the perimeter, a nose end having a sprocket (32).

In claims 4-5 and 9-10, in Ehlen, note the tang is supported at the lower portion.

In claims 11 and 12-14, Ehlen et al. and Bell et al. disclose the claimed invention above. Note bell discloses the radius is designed and dimensioned so that the tang is allowed to engage the gullet at the lower portion of the sprocket. In addition, it would be possible that a second radius of curvature that would be formed by the approximate intersection of the lines tangential to the leading and trailing edges since the angles of the intersecting lines are larger and the radius would depend on the desired angle and radius of the tip of the blade.

In claim 17, Ehlen et al. and Bell discloses the claimed invention above.

3. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehlen et al. in view of Bell et al. (5,136,783) as applied to claim 17 above, and further in view of Fischer (4,754,549). In claim 18, Ehlen et al. and Bell discloses the claimed invention above, except for the upper portion of the drive tang edges is inwardly relieved from the sprocket tooth leading and trailing edges. Fischer et al. discloses a drive chain for a chain saw such that the drive tang (13) of the tooth of the saw, comprising a relieve section at the upper part (26A, 25) portion of the tang in order to allow the tang

to be properly seated in the gullet so as to reduce or eliminate kickback. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the tang of Ehlen to include the relieve section in view of Fischer in order to allow the tang to be properly seated in the gullet so as to reduce or eliminate kickback.

In claim 19, Ehlen et al and Bell discloses the claimed invention above, except for the leading and trailing edges of the sprocket teeth is inwardly relieved from the drive tang. Fischer et al. discloses a nose sprocket (see figs. 11-12) for a chain that includes a relieve section of the leading and trailing edges away from the upper edges of the drive tang, comprising a relieve portion (27, 28) at the leading and trailing edges of the teeth of the sprocket of in order to allow the tang to be properly seated in the gullet so as to reduce or eliminate kickback. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the tang of Ehlen to include the relieve portion at the leading and trailing edges of the teeth of the sprocket in view of Fischer in order to allow the tang to be properly seated in the gullet so as to reduce or eliminate kickback.

In claim 20, note the gullet has an increased v-section.

Response to Arguments

4. Applicant's arguments filed 1-09-2006 have been fully considered but they are not persuasive. Applicant contended that both Ehlen and Bell et al. fail to teach positioning a relief in the upper portion of the leading and trailing edges such that the drive tang is urged to contact the lower portion of the teeth. As it is well noted and

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clearly disclosed by Ehlen, the chain drives the sprocket by virtue of the tang with engagement with the sprocket teeth. It should be noted that the tang refers to the v-shaped edge of the chain. Therefore, the relieve portion of the sprocket is clear of the chain as it would allow the tang to engaged the sprocket. Note the tangs of the sprocket cannot engage the sprocket teeth because it is part of the teeth. Regarding arguments relating to Bell et al. Bell et al. clearly disclose a relief portion in the relief portion is the flat section (74). If this portion is allow to continue at the same angle of the tooth, the tang would be prevent from touching the root the teeth. In addition, in order that tang of Ehlen touches the side plate, the tang must be projected in the root of the sprocket because the side plates are much lower that the of the sprocket teeth. Therefore, for reasons given above, the stated problem solved by the claimed invention would be obvious and inherent.

5. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Conclusion


6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Marcus Charles
Primary Examiner
Art Unit 3682
March 31, 2006